

**ABSTRACT OF THE DISCLOSURE**

Use of a substance that upon administration will lead to increased concentrations of growth hormone, such as growth hormone, a functionally equivalent analogue thereof or a substance that will increase the release of endogenous growth hormone, for the production of a medicinal product for treatment of abnormal conditions affecting neural stem cells, progenitor cells and/or cells derived from neural stem cells or progenitor cells, especially conditions affecting the oligodendroglia, astroglia, and/or neuronal cells. In vitro and in vivo methods for inducing lineage determination, propagating and/or inducing or maintaining the genesis of neurons, oligodendrocytes, astroglial cells from progenitor cells, stem cells and/or cells derived from said cells by administering to the cells a substance that increases the concentration of growth hormone. Also a method of reducing the genesis of oligodendrocytes, neurons, astroglial cells from progenitor cells or stem cells, wherein a pharmaceutically effective amount of a substance that will lead to a decreased concentration of growth hormone or a functionally equivalent analogue thereof is administered to said patient.